

## CLAIMS

1. A heat exchanger, comprising:  
a first header having an inlet therein;  
a second header;  
an outlet in one of said first and second headers;  
a plurality of flat tubes extending between said first and second headers  
for carrying a fluid between said first and second headers;  
a first connector for connecting a first exterior line to one of said first  
and second headers, said exterior line for carrying said fluid,  
said first connector being proximate and substantially parallel to  
an end of one of said flat tubes.

2. The heat exchanger of claim 1, wherein said tubes are  
arranged in a row with said tubes disposed with facing flat sides, and said first  
connector is secured to a portion of said one of said first and second headers  
extending beyond said tube row.

3. The heat exchanger of claim 1, wherein said one of said  
flat tubes extends in a first direction from said one of said first and second  
headers, and first connector extends in said first direction from said header.

-15-

4. The heat exchanger of claim 1, wherein said tubes are arranged in a row with said tubes disposed with facing flat sides, further comprising a second connector for connecting a second exterior line to the other of said first and second headers, said second connector proximate and parallel to another of said flat tubes, said one of said flat tubes being at opposite ends of said row to said another of said flat tubes.

5. The heat exchanger of claim 1, wherein said tubes are flat extruded tubes.

6. The heat exchanger of claim 1, wherein said tubes are defined by a plurality of flat members joined along longitudinal sides to define tube passages between joined flat members.

7. The heat exchanger of claim 1, wherein said first connector is in line with said tubes.

8. The heat exchanger of claim 1, wherein said first connector has a rectangular cross section.

-16-

9. A compact cooling system, comprising:

- 2 a radial fan having an axis, said radial fan directing air flow outwardly  
away from said fan axis;
- 4 a plurality of heat exchangers according to claim 1 disposed around  
said radial fan, said first and second headers extending  
6 generally in the same direction as said fan axis with said plurality  
of flat tubes spaced from a system front to a system back across  
8 said air flow; and
- 10 a system inlet and a system outlet, one of said system inlet and system  
outlet being connected via said first exterior lines to the first  
connectors of at least two of said heat exchangers.

10. The compact cooling system of claim 9, wherein said tubes  
are arranged in a row with said tubes disposed with facing flat sides, further  
comprising a second connector for connecting a second exterior line to the  
other of said first and second headers, said second connector proximate and  
parallel to another of said flat tubes, said one of said flat tubes being at  
6 opposite ends of said row to said another of said flat tubes, and said system  
outlet being connected via said second exterior lines to said second  
8 connectors of said at least two heat exchangers.

11. The compact cooling system of claim 10, wherein said  
2 heat exchangers are disposed around said fan with said first connectors  
adjacent one of said system front and system back and said second  
4 connectors adjacent the other of said system front and system back.

-17-

12. A heat exchanger, comprising:

- 2 a first header having a laterally extending wall with a plurality of tube  
openings and a feed opening proximate an end one of said tube  
4 openings in said wall;  
a second header;  
6 a plurality of flat tubes secured in said first header tube openings and  
extending between said first and second headers for carrying a  
8 fluid between said first and second headers;  
a first connector for connecting a first exterior line to one of said first  
10 and second headers, said exterior line for carrying said fluid,  
said first connector secured in said first header feed opening and  
12 extending substantially parallel to said flat tubes.

092567 "034401  
FOI 2009-034401